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United States Court of Appeals for the Federal Circuit

04-1152

**TELEFLEX, INCORPORATED and
TECHNOLOGY HOLDING COMPANY,**

Plaintiffs-Appellants,

v.

KSR INTERNATIONAL CO.,

Defendant-Appellee.

DECIDED: January 6, 2005

Before MAYER,¹ SCHALL, and PROST, Circuit Judges.

SCHALL, Circuit Judge.

DECISION

Teleflex Incorporated and Technology Holding Company (collectively, "Teleflex") sued KSR International Co. ("KSR") in the United States District Court for the Eastern District of Michigan for infringement of U.S. Patent No. 6,237,565 B1 ("the '565 patent"). On December 12, 2003, the district court granted summary judgment in favor of KSR,

¹ Judge Haldane Robert Mayer vacated the position of Chief Judge on December 24, 2004.

after determining that claim 4 of the '565 patent, the sole claim at issue, was invalid by reason of obviousness. Teleflex Inc. v. KSR Int'l Co., 298 F. Supp. 2d 581 (E.D. Mich. 2003). Teleflex now appeals the district court's decision. For the reasons set forth below, we vacate the grant of summary judgment and remand the case to the district court for further proceedings.

DISCUSSION

I.

Claim 4 of the '565 patent relates to an adjustable pedal assembly¹ for use with automobiles having engines that are controlled electronically with a device known as an electronic throttle control. As such, the assembly of claim 4 incorporates an electronic pedal position sensor (referred to in claim 4, and throughout this opinion, as an "electronic control"). The electronic control is responsive to the pedal pivot and thereby generates an electrical signal corresponding to the relative position of the gas pedal between the rest and applied positions. Claim 4 specifically provides for an assembly wherein the electronic control is mounted to the support bracket of the assembly. This configuration avoids movement of the electronic control during adjustment of the pedal's position on the assembly. Claim 4 reads:

A vehicle control pedal apparatus (12) comprising:

a support (18) adapted to be mounted to a vehicle structure (20);

an adjustable pedal assembly (22) having a pedal arm (14) moveable in force [sic] and aft directions with respect to said support (18);

¹ An adjustable pedal assembly (e.g., gas, break, or clutch) allows the location of the pedal to be adjusted to accommodate a particular driver's height.

a pivot (24) for pivotally supporting said adjustable pedal assembly (22) with respect to said support (18) and defining a pivot axis (26); and

an electronic control (28) attached to said support (18) for controlling a vehicle system;

said apparatus (12) characterized by said electronic control (28) being responsive to said pivot (24) for providing a signal (32) that corresponds to pedal arm position as said pedal arm (14) pivots about said pivot axis (26) between rest and applied positions wherein the position of said pivot (24) remains constant while said pedal arm (14) moves in fore and aft directions with respect to said pivot (24).

The numbers in claim 4 correspond to the numbers in Figure 2 of the '565 patent.

The specification of the '565 patent indicates that prior-art pedal assemblies incorporating an electronic control suffered from being too bulky, complex, and expensive to manufacture. See '565 patent, col. 1, ll. 48-53. It was this problem that the '565 patent set out to address. See id. col. 2, ll. 2-5.

Teleflex sued KSR in the Eastern District of Michigan, alleging that KSR's adjustable pedal assembly infringed claim 4 of the '565 patent. KSR moved for summary judgment of invalidity of claim 4 based on obviousness under 35 U.S.C. § 103. The district court granted KSR's motion after determining that claim 4 was obvious in view of a combination of prior art references. Teleflex timely appealed the district court's decision. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

II.

This court reviews a district court's grant of summary judgment de novo. TorPharm Inc. v. Ranbaxy Pharms., Inc., 336 F.3d 1322, 1326 (Fed. Cir. 2003). "In a patent case, as in any other, summary judgment may be granted when there are no

disputed issues of material fact, . . . or when the non-movant cannot prevail on the evidence submitted when viewed in a light most favorable to it." Knoll Pharm. Co. v. Teva Pharms. USA, Inc., 367 F.3d 1381, 1383 (Fed. Cir. 2004). The movant carries the initial burden of proving that there are no genuine issues of material fact. Celotex Corp. v. Catrett, 477 U.S. 317, 322-24, 106 S. Ct. 2548, 91 L. Ed. 2d 265 (1986). If the movant shows a prima facie case for summary judgment, then the burden of production shifts to the nonmovant to present specific evidence indicating there is a genuine issue for trial. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 250, 106 S. Ct. 2505, 91 L. Ed. 2d 202 (1986). "When ruling on a motion for summary judgment, all of the nonmovant's evidence is to be credited, and all justifiable inferences are to be drawn in the nonmovant's favor." Caterpillar Inc. v. Deere & Co., 224 F.3d 1374, 1379 (Fed. Cir. 2000). "Where the evidence is conflicting or credibility determinations are required, the judgment should be vacated rather than reversed, and the case should be remanded for further proceedings." Jones v. Hardy, 727 F.2d 1524, 1531 (Fed. Cir. 1984).

"The grant of summary judgment of invalidity for obviousness must be done on a claim by claim basis." Knoll Pharm., 367 F.3d at 1383. Because patents are presumed valid, "[t]he accused infringer must prove by clear and convincing evidence that each claim that is challenged cannot reasonably be held to be non-obvious." Id.; see also Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH, 139 F.3d 877, 881 (Fed. Cir. 1998). Clear and convincing evidence exists when the movant "place[s] in the mind of the ultimate fact finder an abiding conviction that the truth of its factual contentions are 'highly probable.'" Colorado v. New Mexico, 467 U.S. 310, 316, 104 S. Ct. 2433, 81 L. Ed. 2d 247 (1994).

A patent claim is obvious, and thus invalid, when the differences between the claimed invention and the prior art "are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. § 103; see also *Graham v. John Deere Co.*, 383 U.S. 1, 14, 86 S. Ct. 684, 15 L. Ed. 2d 545 (1966); *In re Dembiczak*, 175 F.3d 994, 998 (Fed. Cir. 1999). While obviousness is ultimately a legal determination, it is based on several underlying issues of fact, namely: (1) the scope and content of the prior art; (2) the level of skill of a person of ordinary skill in the art; (3) the differences between the claimed invention and the teachings of the prior art; and (4) the extent of any objective indicia of non-obviousness. See *Graham*, 383 U.S. at 17-18. When obviousness is based on the teachings of multiple prior art references, the movant must also establish some "suggestion, teaching, or motivation" that would have led a person of ordinary skill in the art to combine the relevant prior art teachings in the manner claimed. See *Tec Air, Inc. v. Denso Mfg. Mich. Inc.*, 192 F.3d 1353, 1359-60 (Fed. Cir. 1999); *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1572 (Fed. Cir. 1996). The nonmovant may rebut a prima facie showing of obviousness with evidence refuting the movant's case or with other objective evidence of nonobviousness. See *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1359 (Fed. Cir. 1999).

"The reason, suggestion, or motivation to combine [prior art references] may be found explicitly or implicitly: 1) in the prior art references themselves; 2) in the knowledge of those of ordinary skill in the art that certain references, or disclosures in those references, are of special interest or importance in the field; or 3) from the nature of the problem to be solved, 'leading inventors to look to references relating to possible

solutions to that problem.” Ruiz v. A.B. Chance Co., 234 F.3d 654, 665 (Fed. Cir. 2000) (quoting Pro-Mold, 75 F.3d at 1572). “Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.” Dembiczak, 175 F.3d at 999; see also Ruiz, 234 F.3d at 665 (explaining that the temptation to engage in impermissible hindsight is especially strong with seemingly simple mechanical inventions). This is because “[c]ombining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.” Dembiczak, 175 F.3d at 999. Therefore, we have consistently held that a person of ordinary skill in the art must not only have had some motivation to combine the prior art teachings, but some motivation to combine the prior art teachings in the particular manner claimed. See, e.g., In re Kotzab, 217 F.3d 1365, 1371 (Fed. Cir. 2000) (“Particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.” (emphasis added)); In re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998) (“In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.” (emphasis added)).

III.

On appeal, Teleflex argues that we should vacate the district court's grant of summary judgment and remand the case because the district court committed multiple errors in its obviousness determination. First, Teleflex urges that the district court erred as a matter of law by combining prior art references based on an incorrect teaching-suggestion-motivation test. Second, it contends that genuine issues of material fact still remain as to whether a person of ordinary skill in the art would have considered it obvious to combine prior art in the manner stated in claim 4. Finally, Teleflex argues that the district court erred by not properly considering the commercial success of Teleflex's patented assembly and by failing to give adequate deference to the patentability determination of the U.S. Patent and Trademark Office ("PTO").

KSR responds that the district court did apply the correct teaching-suggestion-motivation test, and that, under that test, the court correctly concluded that no genuine issues of material fact existed so as to prevent the grant of summary judgment. KSR contends that the district court properly discounted the declarations of Teleflex's experts because their opinions were based on mere legal conclusions. KSR also contends that the district court properly dismissed Teleflex's evidence of commercial success because Teleflex failed to establish a nexus between commercial success and the claimed invention. Finally, KSR argues that the district court gave proper deference to the PTO.

We agree with Teleflex that the district court did not apply the correct teaching-suggestion-motivation test. We also agree that, under that test, genuine issues of material fact exist, so as to render summary judgment of obviousness improper. For

these reasons, we vacate the decision of the district court and remand for further proceedings consistent with this opinion.

IV.

After comparing the teachings of the prior art with claim 4 of the '565 patent, the district court concluded that, at the time of the invention, all of the limitations of claim 4 existed in the prior art. The court explained that U.S. Patent No. 5,010,782, issued to Asano et al. ("the Asano patent"), disclosed all of the structural limitations of claim 4 with the exception of the electronic control. Teleflex, 298 F. Supp. 2d at 592 ("Asano teaches an adjustable pedal assembly pivotally mounted on a support bracket with the pedal moving in a fore and aft directions with respect to the support and the pivot remaining in a constant position during movement of the pedal arm."). Electronic controls were well known in the prior art. Id. Consequently, after finding a person of ordinary skill in the art would have been motivated to combine Asano and electronic control references, the district court granted KSR's motion for summary judgment of invalidity by reason of obviousness.

The district court based its finding of a suggestion or motivation to combine largely on the nature of the problem to be solved by claim 4 of the '565 patent. Id. at 593-94. The court determined from the patent's specification that the invention of the '565 patent was intended to "solve the problem of designing a less expensive, less complex and more compact [assembly] design." Id. at 593. The court then explained that U.S. Patent No. 5,819,593, issued to Rixon et al. ("the Rixon '593 patent"),² also

² As explained by the district court, the Rixon '593 patent teaches the combination of an electronic control with an adjustable pedal assembly. The Rixon '593 patent and claim 4 differ, however, in that the electronic control of Rixon is attached to

"suffered from being too complex because the pedal position sensor is located in the pedal housing and its fore and aft movement with the adjustment of the pedal could cause problems with wire failure. Thus, the solution to the problem required an electronic control that does not move with the pedal arm while the pedal arm is being adjusted by the driver." Id. at 594. The court then concluded that "a person with ordinary skill in the art with full knowledge of Asano and the modular pedal position sensors would be motivated to combine the two references to avoid the problems with Rixon '593." Id.

The district court also found an express teaching to attach the electronic control to the support bracket of a pedal assembly based on the disclosure of U.S. Patent No. 5,063,811, issued to Smith et al. ("the Smith patent"). The court explained that Smith teaches the use of a "rotary potentiometer . . . attached to a fixed support member and responsive to the pedal's pivot shaft." Id. Moreover, the court stated that Smith provided express teachings as to the desirability of attaching the electronic control to a fixed support member in order to avoid the wire failure problems disclosed in the Rixon '593 patent and solved by the '565 patent: "[T]he wiring to the electrical components must be secure from the possibility of chafing which will eventually result in electrical failure. Thus, the pedal assemblies must not precipitate any motion in the connecting wires themselves . . ." Id. (quoting the Smith patent, col. 1, ll. 33-38).

(Cont'd. . . .)

the pedal housing instead of the support bracket. See Teleflex, 298 F. Supp. 2d at 594. The electronic control of the Rixon reference consequently moves during adjustment of the pedal assembly. Id. The electronic control of claim 4 does not move during adjustment of the pedal assembly.

Finally, the district court explained that the prosecution history of the '565 patent bolstered its finding of a suggestion or motivation to combine the Asano and electronic control references. The court explained that the patent examiner initially rejected the '565 patent in view of the teachings of U.S. Patent No. 5,460,061, issued to Redding et al. ("the Redding patent"), and the Smith patent. The examiner stated that the Redding patent disclosed the assembly structure of claim 4 and that Smith disclosed the electronic control attached to the assembly support structure. The patentee overcame the rejection, the court explained, by adding the limitation requiring the position of the assembly's pedal pivot to remain constant during adjustment of the assembly. (The position of the pedal pivot of the Redding patent does not remain constant during adjustment of the assembly position.) However, the Asano patent discloses an assembly where the position of the pivot remains constant during adjustment of the pedal assembly. Therefore, the district court reasoned, had Asano been cited to the patent examiner, the examiner would have rejected claim 4 as obvious in view of the Asano and Smith patents. Id. at 595.

We agree with Teleflex that the district court's analysis applied an incomplete teaching-suggestion-motivation test in granting KSR summary judgment. This is because the district court invalidated claim 4 of the '565 patent on obviousness grounds without making "finding[s] as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of [the] invention to make the combination in the manner claimed." Kotzab, 217 F.3d at 1371. Under our case law, whether based on the nature of the problem to be solved, the express teachings of the prior art, or the knowledge of one of ordinary skill in the art, the

district court was required to make specific findings as to whether there was a suggestion or motivation to combine the teachings of Asano with an electronic control in the particular manner claimed by claim 4 of the '565 patent. See Kotzab, 217 F.3d at 1371; Rouffet, 149 F.3d at 1357. That is, the district court was required to make specific findings as to a suggestion or motivation to attach an electronic control to the support bracket of the Asano assembly.

The district court correctly noted that the nature of the problem to be solved may, under appropriate circumstances, provide a suggestion or motivation to combine prior art references. However, the test requires that the nature of the problem to be solved be such that it would have led a person of ordinary skill in the art to combine the prior art teachings in the particular manner claimed. See Rouffet, 149 F.3d at 1357. We have recognized this situation when two prior art references address the precise problem that the patentee was trying to solve. See Ruiz, 357 F.3d at 1276 ("This record shows that the district court did not use hindsight in its obviousness analysis, but properly found a motivation to combine because the two references address precisely the same problem of underpinning existing structural foundations."). In this case, the Asano patent does not address the same problem as the '565 patent. The objective of the '565 patent was to design a smaller, less complex, and less expensive electronic pedal assembly. The Asano patent, on the other hand, was directed at solving the "constant ratio problem."³ The district court's reliance on the problems associated with the Rixon '593 patent similarly fails to provide a sufficient motivation to combine. This is

³ The constant ratio problem refers to the problem of creating an assembly where the force required to depress the pedal remains constant irrespective of the position of the pedal on the assembly. See Asano patent, col. 1, l. 48–col. 2, l. 13.

because the Rixon '593 patent does not address the problem to be solved by the '595 patent; rather, it suffers from the problem. The court did not explain how suffering from the problem addressed by the '595 patent would have specifically motivated one skilled in the art to attach an electronic control to the support bracket of the Asano assembly.

Neither do we agree with the district court's reliance on the express teachings of the Smith patent. This is because the statement in the Smith patent that "the pedal assemblies must not precipitate any motion in the connecting wires," does not necessarily go to the issue of motivation to attach the electronic control on the support bracket of the pedal assembly. In other words, solving the problem of wire chafing is a different task than reducing the complexity and size of pedal assemblies. What is more, the Smith patent does not relate to adjustable pedal assemblies; therefore, it does not address the problem of wire chafing in an adjustable pedal assembly.

Our view of the case is not altered by the '565 patent's prosecution history. That is because a court's task is not to speculate as to what an examiner might have done if confronted with a piece of prior art. Rather, a court must make an independent obviousness determination, taking into account the statutory presumption of patent validity. See TorPharm, 336 F.3d at 1329-30 ("[W]here the factual bases of an examiner's decision to allow a claim have been undermined—as in other cases where prior art not before the examiner is brought to light during litigation—a court's responsibility is not to speculate what a particular examiner would or would not have done in light of the new information, but rather to assess independently the validity of

the claim against the prior art under section 102 or section 103. Such determination must take into account the statutory presumption of patent validity.").⁴

We also agree with Teleflex that the presence of genuine issues of material fact rendered summary judgment inappropriate. KSR, in the first instance, failed to make out a prima facie case of obviousness. The only declaration offered by KSR—a declaration by its Vice President of Design Engineering, Larry Willemsen—did not go to the ultimate issue of motivation to combine prior art, i.e. whether one of ordinary skill in the art would have been motivated to attach an electronic control to the support bracket of the assembly disclosed by Asano. Mr. Willemsen did state that an electronic control "could have been" mounted on the support bracket of a pedal assembly. (Willemsen Decl. at ¶ 33, 36, 39.) Such testimony is not sufficient to support a finding of obviousness, however. See, e.g., In re Deuel, 51 F.3d 1552, 1559 (Fed. Cir. 1995) ("Obvious to try" has long been held not to constitute obviousness.). Mr. Willemsen also provided the following as a "specific motivation to combine" an electronic control with an adjustable pedal assembly:

[A]n increasing number of vehicles sold in the United States came equipped with electronic throttle control systems because such systems offered various operational advantages over cable-actuated throttle control systems In order to function in a vehicle whose engine incorporated an electronic throttle control, the adjustable pedal assembly . . . would have had to be coupled to an electronic pedal position sensor.

⁴ Noting Teleflex's argument that the district court did not give adequate deference to the PTO, we do not discern anything in the record indicating the district court failed to properly defer to the PTO. Nevertheless, we reiterate that, on remand, the district court must independently assess the evidence and determine whether KSR has provided clear and convincing evidence indicating invalidity of claim 4 by reason of obviousness.

(Willemsen Decl. at ¶ 34, 37, 39.) This statement may be factually correct. However, the issue is not whether a person of skill in the art had a motivation to combine the electronic control with an adjustable pedal assembly, but whether a person skilled in the art had a motivation to attach the electronic control to the support bracket of the pedal assembly.

In addition, Teleflex offered two declarants—Clark J. Radcliffe, Professor of Mechanical Engineering at Michigan State University; and Timothy L. Andresen, a former engineer at Ford Motor Company and McDonnel-Douglas Corporation—in rebuttal of the declaration of Mr. Willemsen. Mr. Radcliffe stated, *inter alia*, that “[t]he location of the electronic control” (Radcliffe Decl. at ¶ 15) in claim 4 “was a simple, elegant, and novel combination of features,” (Radcliffe Decl. at ¶ 16) as opposed to the Rixon '593 patent’s attachment of the electronic control to the assembly housing, which was both electrically and mechanically complex (Radcliffe Decl. at ¶ 17). Mr. Andresen also stated that the non-obviousness of claim 4 was reflected in Rixon’s choice to mount the electronic control to the assembly housing instead of the assembly’s support bracket. (Andresen Decl. at ¶ 5.) At the summary judgment stage of a proceeding, it is improper for a district court to make credibility determinations. See, e.g., Jones, 727 F.2d at 1531. Therefore, by crediting KSR’s expert declarant and discrediting the two declarants offered by Teleflex, the district court erred as a matter of law.

V.

In sum,

(1) We hold that, in granting summary judgment in favor of KSR, the district court erred as a matter of law by applying an incomplete teaching-suggestion-motivation

test to its obviousness determination. The correct standard requires a court to make specific findings showing a teaching, suggestion, or motivation to combine prior art teachings in the particular manner claimed by the patent at issue.

(2) Under this standard, we hold that genuine issues of material fact exist as to whether a person of ordinary skill in the art would have been motivated, at the time the invention was made, to attach an electronic control to the support structure of the pedal assembly disclosed by the Asano patent.

(3) We consequently vacate the decision of the district court and remand the case for further proceedings on the issue of obviousness, and, if necessary, proceedings on the issues of infringement and damages.

Each party shall bear its own costs.